

Application Serial No. 10/002,049
Amendment dated July 30, 2003
Reply to final Office Action dated April 8, 2003

REMARKS

Applicants would like to thank the Examiner for the telephone interview with Applicants' representative on July 16, 2003, wherein the oven locking mechanism disclosed in the Siegel reference and recited in Applicants' claimed invention were discussed to gain a common understanding of their mechanical structures as well as their functional results. Claims 1-17 and 19-23 are pending and stand rejected. Claims 1-6 and 19-23 have been canceled without prejudice. Claims 7-17 have remained unchanged, and Applicants respectfully assert that, in light of the arguments presented below, claims 7-17 are distinguished from the Siegel reference cited by the Examiner.

Claim Objections

Claim 1 has been objected due to insufficient antecedent basis for "the oven door" and "the oven". Claim 1 has been canceled without prejudice, thereby rendering this objection moot.

Claim 7 has been objected due to insufficient antecedent basis for "the oven door". Claim 7 has been amended to replace "the" with "an" in the phrase "the oven door", thereby eliminating the need for antecedent basis.

General Comments

Through the telephone conversation between the Examiner and Applicants' representative on July 16, 2003, the Applicants and the Examiner have arrived at a mutual understanding of how Siegel's oven locking mechanism and

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Applicants' oven locking mechanism provide lock and unlock temperatures. Particularly, it was commonly understood and accepted that Siegel's oven locking mechanism results in an unlock temperature higher than the lock temperature. Siegel's lock mechanism, as shown in Fig. 4, includes a thermally responsive coil 46 affixed to one end of a lock member 52. The other end of the lock member 52 is firmly affixed through arm 56 and terminates in an opening about which it is freely rotatable. Plate 58 includes locking element 66, including lug 68 (Fig. 2) which is responsible for maintaining latch 20 in a latch-locked position at and above the locking temperature. At lock temperature, lug 68 abuts jam 30 (Fig. 2). Beyond the lock temperature, arm 56 continues to rotate through arcuate slot 60 despite the resistance provided by plate 58 (Fig. 6). However, upon cooling of the oven, thermally responsive coil 46 retracts in the reverse direction causing lock member 52 to also rotate in the reverse direction, which in turn rotates arm 56 in the reverse direction. However, locking plate 58 is "fixedly carried" in the reverse direction by rotating arm 56. This is clearly evident from the specification. More specifically, "the motion of arm 56 is transmitted through pin 62 to plate 58, whereby the plate 58 will be caused to rotate with arm 56." (col. 3, line 52 - col. 4, line 2). Thus, as soon as the oven begins to cool and coil 46 begins to retract, plate 58 and adjoining lock element 66 rotate in the reverse direction, effectively unlocking the oven door (Fig. 5). Thus, the mechanical structure and design of Siegel's oven locking mechanism is faulty because it unlocks the oven at an

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uncontrolled temperature that can be anywhere from substantially similar to or higher than that at which it locks. This is particularly dangerous because, in the event that the oven is in a cleaning cycle where the temperatures inside the oven generally exceeds 1000°F, the oven door may unlock during cooling at a temperature only a few degrees below the highest temperature achieved, thereby presenting a significant risk of injury.

In addition, and as discussed in the telephone conference, the lock and unlock temperatures of Siegel's locking mechanism are dependent on the history of the oven in terms of the oven's past heating and cooling cycles. For example, if the oven was initially heated to a locking temperature of 675°F and immediately cooled, the oven door would unlock at a temperature only a few degrees below approximately 675°F, depending upon the rate of cooling of the oven. However, before completely cooling down, if the oven was again heated to a temperature of about 1000°F, such as in an oven self-cleaning cycle, and cooled after the cycle was complete, the oven door would have locked at a temperature of about 675°F may unlock at a temperature only slightly below the highest temperature achieved during the cleaning cycle, which could be around 1000°F. Again, if the oven were allowed to cool down only to about 800° before again being heated well beyond 1000°F and then cooled, the oven door would lock at a temperature slightly higher than the coolest point of the cycle (800°F), and would then unlock at a temperature potentially near the peak of the heating cycle, which may be as high as 1200°F to 1400°F! Thus, the unlock temperature may be substantially higher

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than the lock temperature, and the lock and unlock temperature, and the differences between them are completely dependent upon the heating and cooling history of the oven. In contrast, Applicants' oven door locking mechanism determines substantially different lock and unlock temperatures consistently and as established by the mechanical structure and design, and not from the recent history of the heating and cooling cycle of the oven.

Claim Rejections Under 35 U.S.C. §102

Claims 1-17 and 19-23 are rejected under 35 U.S.C. §102(b) as being anticipated by Siegel. Applicants have cancelled claims 1-6 and 19-23 without prejudice. Applicants respectfully assert that claims 7-17 are distinguished from Siegel cited by the Examiner for the reasons discussed above, as well as those described below.

Independent claim 7, upon which claims 8-16 directly or indirectly depend, recites "said lock member defines a first side of said clutch as a keyed aperture." The lock mechanism disclosed in the Siegel reference fails this element required in Applicant's independent claim 7. Particularly, Siegel's lock mechanism, as illustrated in Fig. 4, fails to show any keyed aperture defining a side of a clutch. Accordingly, on this basis alone, Siegel does not anticipate nor render obvious Applicants' independent claim 7.

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As dependent claims 8-16 all depend from independent claim 7, and necessarily recite the elements recited in independent claim 7, the Siegel reference does not anticipate claims 8-16 for the same reasons as recited above with respect to claim 7. Accordingly, Applicants respectfully request withdrawal of the rejections.

Applicants' independent claim 17 recites "a thermally responsive element defining a second side of said clutch as a slot" and "a lock member defining a first side of said clutch as a recess, said recess is engaged with said slot." Siegel is deficient with respect to providing a slot in the thermally responsive element 46 and a recess in lock member 52 that is engaged with the slot. Particularly, Siegel's thermally responsive element 46 is a coil and does not contain a slot on either of ends 48, engaged with plate 50, or the opposing end which is engaged with lock member 52. Lock member 52 includes a slot at one end which is merely "supported" by the end of thermally responsive coil 46. Nowhere in Siegel's disclosure does Siegel disclose a thermally responsive element other than the coil 46 illustrated in Fig. 4. Moreover, lack of a slot on one end of coil 46 cannot suggest the presence of a slot on coil 46, and therefore cannot suggest a slot "engaged" with lock member 52. As Siegel's thermally responsive element fails to define "a second side of said clutch as a slot", Siegel cannot anticipate nor render obvious Applicants' independent claim 17. Accordingly, Applicants respectfully request a withdrawal of this rejection.

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Conclusion

For the foregoing reasons, Applicants respectfully submit that Claims 7-17 are patentable, and a Notice of Allowance is respectfully requested.

Attached herewith is a request for a one-month extension of time for filing this Amendment. Accordingly, please charge Deposit Account 23-3000 the amount of \$110.00 as fee for the one month extension. If additional fees are necessary, please also charge them to Deposit Account 23-3000.

The Examiner is invited to telephone the undersigned attorney if there are any outstanding questions or issues.

Respectfully submitted,

WOOD, HERRON & EVANS, L.L.P.

By: G. Prabhakar Reddy
G. Prabhakar Reddy, Reg. No. 47,890

Wood, Herron & Evans, L.L.P.
2700 Carew Tower
Cincinnati, OH 45202
(513) 241-2324 (voice)
(513) 421-7269 (facsimile)
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